

1999B062A
Response to FOA dated 5/16/2006
Response dated 7/14/06

PATENT

IN THE CLAIMS:

Please amend the claims as follows:

1. (Previously presented) An inner tube comprising a blend comprising:
at least 15 parts per hundred rubber halogenated isobutylene-co-alkylstyrene polymer; and
a second rubber component, wherein the halogen is present from 0.1 to 3.0 mol% relative to the total amount of the polymer.
2. (Original) The inner tube of Claim 1, wherein the halogenated isobutylene-co-alkylstyrene is brominated isobutylene-co-methylstyrene polymer.
3. (Original) The inner tube of Claim 1, wherein the halogenated isobutylene-co-alkylstyrene is brominated isobutylene-co-*paramethylstyrene* polymer.
4. (Cancelled)
5. (Original) The inner tube of Claim 1, comprising at least 25 parts per hundred rubber halogenated isobutylene-co-alkylstyrene polymer.
6. (Original) The inner tube of Claim 1, comprising at least 40 parts per hundred rubber halogenated isobutylene-co-alkylstyrene polymer.
7. (Cancelled)
8. (Original) The inner tube of Claim 1, further comprising a cure package.
9. (Original) The inner tube of Claim 8, further comprising a vulcanizing agent, a retarder, a filler, or blends thereof.

1999B062A

Response to FOA dated 5/16/2006

Response dated 7/14/06

PATENT

10. (Currently amended) The inner tube of Claim 1, wherein the second rubber component is selected from the group consisting of natural rubber, polyisoprene rubber, poly(styrene-co-butadiene) rubber (SBR), polybutadiene rubber (BR), ~~butyl rubber~~, poly(isoprene-co-butadiene) rubber (IBR), styrene-isoprene-butadiene rubber (SIBR), polysulfide, nitrile rubber, propylene oxide polymers, and semi-crystalline copolymer (SCC), ~~halogenated star branched butyl rubber, brominated butyl rubber, chlorinated butyl rubber, star branched butyl (polyisobutylene/isoprene copolymer) rubber, star branched halogenated (brominated or chlorinated) butyl (polyisobutylene/isoprene copolymer) rubber, poly(isobutylene-co-methylstyrene), and halogenated poly(isobutylene-co-methylstyrene).~~
11. (Previously presented) The inner tube of Claim 1, wherein the halogen is bromine.
12. (Previously presented) The inner tube of Claim 1, wherein the halogen is chlorine.
13. (Previously presented) An inner tube comprising a blend comprising:
at least 15 parts per hundred rubber halogenated isobutylene-co-methylstyrene polymer; and
a second rubber component, wherein the halogen is present from 0.1 to 3.0 mol% relative to the total amount of the polymer.
14. (Currently amended) The inner tube of Claim 13, where the second rubber component is selected from the group consisting of natural rubber, polyisoprene rubber, poly(styrene-co-butadiene) rubber (SBR), polybutadiene rubber (BR), ~~butyl rubber~~, poly(isoprene-co-butadiene) rubber (IBR), styrene-isoprene-butadiene rubber (SIBR), polysulfide, nitrile rubber, propylene oxide polymers, and semi-crystalline copolymer (SCC), ~~halogenated star branched butyl rubber, brominated butyl rubber, chlorinated butyl rubber, star branched butyl (polyisobutylene/isoprene copolymer) rubber, star branched halogenated (brominated or chlorinated) butyl (polyisobutylene/isoprene copolymer) rubber, poly(isobutylene-co-methylstyrene), and halogenated poly(isobutylene-co-methylstyrene).~~

1999B062A

PATENT

Response to FOA dated 5/16/2006

Response dated 7/14/06

15. (Previously presented) The inner tube of Claim 13, wherein the halogenated isobutylene-co-methylstyrene polymer is brominated isobutylene-co-methylstyrene polymer.
16. (Previously presented) The inner tube of Claim 13, wherein the halogenated isobutylene-co-methylstyrene polymer is brominated isobutylene-co-paramethylstyrene polymer.
17. (Previously presented) The inner tube of Claim 13, wherein the second rubber component is an isobutylene-based rubber.
18. (Original) The inner tube of Claim 17, wherein the isobutylene based rubber comprises at least 80 weight % isobutylene.
19. (Cancelled)
20. (Previously presented) The inner tube of Claim 13, comprising at least 25 parts per hundred rubber halogenated isobutylene-co-methylstyrene polymer.
21. (Previously presented) The inner tube of Claim 13, comprising at least 40 parts per hundred rubber halogenated isobutylene-co-methylstyrene polymer.
22. (Cancelled)
23. (Original) The inner tube of Claim 13, wherein the blend further comprises a cure package.
24. (Original) The inner tube of Claim 23, wherein the blend further comprises a vulcanizing agent, a retarder, a filler, or blends thereof.
25. (Previously presented) The inner tube of Claim 13, wherein the halogen is present from 0.25 to 2.0 mol% relative to the total amount of the polymer.

1999B062A
Response to FOA dated 5/16/2006
Response dated 7/14/06

PATENT

26. (Original) The inner tube of Claim 25, wherein the halogen is bromine.
27. (Original) The inner tube of Claim 25, wherein the halogen is chlorine.
28. (Previously presented) A tire assembly comprising:
- a) a tire; and
 - b) an inner tube comprising a blend comprising at least 15 parts per hundred rubber halogenated isobutylene-co-alkylstyrene polymer; and
a second rubber component, wherein the halogen is present from 0.1 to 3.0 mol% relative to the total amount of the polymer.
29. (Original) The tire assembly of Claim 28, wherein the halogenated isobutylene-co-alkylstyrene polymer is brominated isobutylene-co-methylstyrene polymer.
30. (Original) The tire assembly of Claim 28, wherein the halogenated isobutylene-co-alkylstyrene polymer is brominated isobutylene-co-*paramethylstyrene* polymer.
31. (Original) The tire assembly of Claim 28, wherein the blend further comprises ethylene-propylene-diene rubber (EPDM).
32. (Currently amended) The tire assembly of Claim 28, wherein the second rubber component is selected from the group consisting of natural rubber, polyisoprene rubber, poly(styrene-co-butadiene) rubber (SBR), polybutadiene rubber (BR), ~~butyl rubber~~, poly(isoprene-co-butadiene) rubber (IBR), styrene-isoprene-butadiene rubber (SIBR), polysulfide, nitrile rubber, propylene oxide polymers, and semi-crystalline copolymer (SCC), ~~halogenated star branched butyl rubber, brominated butyl rubber, chlorinated butyl rubber, star branched butyl (polyisobutylene/isoprene copolymer) rubber, star branched halogenated (brominated or chlorinated) butyl (polyisobutylene/isoprene copolymer) rubber, poly(isobutylene-co-methylstyrene), and halogenated poly(isobutylene-co-methylstyrene).~~

1999B062A

PATENT

Response to FOA dated 5/16/2006

Response dated 7/14/06

33. (Previously presented) The tire assembly of Claim 28, wherein the second rubber component comprises isobutylene-based rubber.
34. (Previously presented) The tire assembly of Claim 33, wherein the isobutylene-based rubber comprises a copolymer of isobutylene/isoprene.
35. (Previously presented) The tire assembly of Claim 28, wherein the halogen is present from 0.2 to 2.0 mol% relative to the total amount of polymer.
36. (Original) The tire assembly of Claim 35, wherein the halogen is bromine.
37. (Original) The tire assembly of Claim 35, wherein the halogen is chlorine.
38. (New) The inner tube of Claim 1, wherein the second rubber component is selected from the group consisting of halogenated star-branched butyl rubber, brominated butyl rubber, chlorinated butyl rubber, star-branched butyl (polyisobutylene/isoprene copolymer) rubber, star-branched halogenated (brominated or chlorinated) butyl (polyisobutylene/isoprene copolymer) rubber, poly(isobutylene-co-methylstyrene), and halogenated poly(isobutylene-co-methylstyrene).
39. (New) The inner tube of Claim 13, wherein the second rubber component is selected from the group consisting of halogenated star-branched butyl rubber, brominated butyl rubber, chlorinated butyl rubber, star-branched butyl (polyisobutylene/isoprene copolymer) rubber, star-branched halogenated (brominated or chlorinated) butyl (polyisobutylene/isoprene copolymer) rubber, poly(isobutylene-co-methylstyrene), and halogenated poly(isobutylene-co-methylstyrene).
40. (New) The tire assembly of Claim 28, wherein the second rubber component is selected from the group consisting of halogenated star-branched butyl rubber, brominated butyl rubber, chlorinated butyl rubber, star-branched butyl (polyisobutylene/isoprene copolymer) rubber, star-branched halogenated (brominated

1999B062A

Response to FOA dated 5/16/2006

Response dated 7/14/06

PATENT

or chlorinated) butyl (polyisobutylene/isoprene copolymer) rubber, poly(isobutylene-co-methylstyrene), and halogenated poly(isobutylene-co-methylstyrene).